DETERMINATION OF FOOD-RELATED VALUES OF ELDERLY MEN AND WOMEN IN STILLWATER, OKLAHOMA

By

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CHAPTER I

INTRODUCTION

Significance of the Study

"The health needs of older people are now a matter of concern in all industrialized and developing countries," according to Shanas (66, p. 261). This concern reflects the increase in growth of the aged population globally.

According to United Nations estimates, those persons 65 years of age and over now number about 200 million and by 1985, they may be approximately 275 million in number and by the year 2000, almost 400 million. In developed countries such as the United States with its 21 million elderly, older people make up about 10 percent of the population. In developing regions, they now comprise between three and four percent of the population--a proportion comparable to that for the United States in 1900. Both the number and proportion of the aged in developing countries are expected to increase. In the United States, while the numbers of aged persons are expected to rise sharply it had been expected that their proportion of the total population would remain at about 10 percent. If the recent declines in the birth rate continue, however, by the year 2000, people aged 65 and over will be about 15 percent of the American population (66).

Brotman (10) stated that the aging are the newest and most rapidly

growing minority. Though this group eventually encompasses all other minorities as well as the majority, it is not a favored minority. For most of the elderly,

> the struggle is one for economic survival; for many it is a struggle for some social status, for all it is a struggle against being pushed out of the mainstream into a subculture--a subculture of poverty and of social uselessness (10, p. 249).

The advances in medicine, improved sanitation, and growth of nutritional knowledge (42) have helped to permit this large proportion of our population to reach old age. Brotman (10) indicated that these factors, as well as others, have produced the changes that make the elderly a generally dependent group having denied them their most important and traditional functions, roles, and statuses.

The rural multigenerational family has been replaced in our society by the urban nuclear family, with the elderly maintaining separate households and without their former roles in family life. Mandatory retirement provisions and the disappearance of old skills have resulted in the majority of older people being forced out of the labor market. Most older people are dependent for all or a very high proportion of their income on retirement payments of various types which are usually inadequate to cover their ever-increasing cost of living (10).

Sipple (69) pointed out that workers concerned with education in the broad field of food, nutrition, and health are confronted with a variety of problems, two of the major ones being:

(a) How to present nutrition information that will motivate people to adopt foods habits that will enable them to achieve adequate nutrition.
(b) How to use existing educational systems to carry nutrition information to the various segments of the population in a truly effective way (69, p. 18).

In whatever form the educator decides to use for instruction of the target audience, it must be compatible with the individual's income, goals, values, and level of understanding (38). While there are vast differences within the aged population group itself, more information about the lifestyles of retirement-aged people is needed (10).

Statement of the Problem

Since approximately one-half to one-third of the health problems of the 20 million elderly in the United States are believed to be related to nutrition, there is a current, apparent, and urgent need for nutrition education for this segment of our society (73).

> Although it is often said that it is difficult to teach the aged new ideas, it must be acknowledged that no large-scale, concerted effort has yet been made to eliminate undesirable old habits and introduce new and better ones. Herein lies a great challenge for national nutrition policy toward the 20 million Americans who are classified as old (81, p. 54).

In order to create behavioral changes with regard to food selection, preparation, and consumption, educators must know how to bring about changes as well as to recognize needed changes (84). A diversity of socio-economic and cultural factors influence food choices, such as: (a) poverty, (b) pleasure, (c) home and family life, (d) established food patterns, and (e) various personal aspects of food likes and dislikes (84). Consequently, it can be seen that producing changes in food-related behavior is quite complex. By incorporating those known values of the elderly into nutrition education programs, the acceptance of nutrition education will be more favorable.

In order for an audience's food-related behavior to be influenced, the food-related values held most important by that audience need to be

determined. The majority of writers agree that values are derived from experience (34). Hence, research in the lifestyles of the elderly can provide much useful information concerning the values held to be important by them. Such research is significant since one's values influence the way an individual will react when presented with a situation permitting more than one mode of action (34).

Objectives of the Study

The objectives of this study were:

1. To complete the food-related values study of elderly men and women by administering the food-related values test to the original sample.

2. To identify variables which are of significance related to the values identified.

3. To make suggestions and recommendations to nutrition educators so that emphasis will be placed on those areas of nutrition education identified as important.

Assumptions

This study was conducted on the basis of the following underlying assumptions:

1. A test instrument can be developed to identify the most important food-related values of a sample of elderly men and women.

2. Nutrition education based on the values held most important by elderly men and women can effectively serve as a guide to help improve their food-related behavior.

Definitions of Terms

After a review of the literature, Engebretson's definition of a value was accepted in this study:

Values--"Values are conceptions of the desirable which affect an individual's choice among possible courses of action" (76, p. 7). Barbour (2) defined the following values as important to elderly men and women:

Economy--Use of money, goods, services, and time to obtain the greatest amount of return from the resources used for food.

Education--Purposeful improvement involving some form of food and nutrition learning for self or others toward whom one feels close.

Health--State of mental, physical, and social well-being.

Security--Protection against anxiety, fear, or danger.

Social Activity--Planned or unplanned companionship and pleasurable activities with one's associates.

Status--Holding a position equal to or better than other people with whom a person is associated.

Limitations of the Study

In 1973, 150 elderly men and women in Stillwater, Oklahoma were interviewed and ranked food-related values believed to be important in stressing improvement of food habits through nutrition education. Due to various factors such as death, relocation, and illness, 110 subjects of the original 150 participated in the values test in 1975-76.

The food-ranked values test in this study was constructed from the ranking of value statements in interviews with the original sample of

150 retired men and women. The statements used in the interview were developed by Barbour (2) and approved by three experts in the fields of nutrition and family relations. The experts were all faculty in the Division of Home Economics at Oklahoma State University, had an understanding of the concept of values, and had experience in working with the elderly. However, there was no statistically validating test to determine if the statements convey the idea they were supposed to for the value represented.

Implications for educators and nutritionists working with the elderly were only obtained from analysis of the data acquired from the previous interview and the food-related values test.

Procedure

The procedures used in the research were as follows: (a) select the sample, (b) develop the interview, (c) develop the food-related values test, (d) collect the data using this test instrument, and (e) analyze the data.

Selection of the Sample

This research was initially begun in 1973 when Dr. Helen F. Barbour was Head of the Department of Food, Nutrition and Institution Administration at Oklahoma State University. With consultation from a statistician, a random selection of a sample was chosen. A United States Census map of Stillwater was used to determine the number of people aged 65 and over in each of the map tracts. A sample size of 150 was also determined as was the number of people to be selected from each Census tract. Dr. Barbour and an assistant used the block sampling

technique to arrive at the total sample of 120 women and 30 men.

Development of the Interview

The procedure for this study was first conducted by Suter (76) as her master's thesis in 1971. Her review of literature concerning values, interviewing techniques, and instrument development was reviewed by the researcher and served as a guide in conducting the final phase of this study.

The definition of "value" was decided upon, and six values were selected as being most appropriate. In her study (33), Kohlmann recommended that six values be used in a study of values. It was believed that any more values would only prolong the interview and might possibly cause loss of interest on the part of the subjects. It was desired that the test should not require more than 30 minutes to complete, including the time required to read the value statements to the subject and to answer any questions (76).

Development of the Food-Related Values Test

This instrument was constructed from the results of the interview conducted by Barbour (2) in 1973. It consisted of 45 paired value statements designed to make sue of the paired comparison and forced choice techniques.

For the purpose of pretesting the food-related values test, eight women at the Stillwater Senior Citizens Center cooperated by taking the test. In contrast to the interview in which the subject indicated the degree to which a particular value statement best described his behavior,

the values test instrument forced the subject to decide between two value statements in a paired format. Hence, the scores of the interview and those of the values test instrument cannot be directly compared, but only the relative ranking of the values as indicated by the results of each instrument (76).

Collecting the Data

Each of the subjects was visited by the researcher to give instruction to assist in making the selection he considered important in each pair of statements, reading each statement in the values test instrument, and to answer any questions the subject might have. It was felt that the subjects would complete the test and would do so with more validity if the researcher was present while the test was being administered.

Analysis of the Data

The results of the test instrument administration were recorded and prepared in tabular form to facilitate analysis of the data. Since there was no statistically validating test to determine conferred meanings of the value statements, this type of validation procedure could not be used.

CHAPTER II

REVIEW OF SELECTED LITERATURE

No studies of food-related values of retired men and women were found in the literature. Therefore, it was felt that research conducted in this area would be of significant value to nutritionists and educators working with this age group to improve their food-related behavior.

Definitions of Values

The literature concerning values is voluminous with donations from educators, sociologists, anthropologists, and psychologists. Considerable discussions have been published concerning values, but little research has been conducted (71). Thus, it was necessary to select an operational definition for use in this study. Engebretson's definition of values was accepted:

> Values are considered to be conceptions of the desirable which affect an individual's choices among possible courses of action. Accordingly, values are conceptualizations which are beliefs or ideas. But the beliefs or ideas are not about what exists or what is desired but are about what is desirable or what ought to be. As such, values may initiate behavior and act as channels in shaping it. They are a part of the preferential behavior but not the whole of it and are differentiated from other terms such as motives, wants, and needs (76, p. 12).

The definition developed by Engebertson is in agreement with those of Smith, Jacob, Flink and Shuckman, and Kluckhohn (30, 32, 71). Smith

defined values as "conceptions of the desirable that are relevant to selective behavior" (71, p. 331). Jacob, et al. interpreted values as "only the normative by which human beings are influenced in their choices among the alternative courses of action which they perceive" (30, p. 10). A value, as defined by Kluckhohn, "is a conception, explicit and implicit, distinctive of an individual or characteristic of a group of the desirable which influences the selection from available modes, means, and ends of action" (32, p. 396).

Other definitions of the word "value" were found in the literature. Williams defined values as "those conceptions of the desirable states of affairs that are utilized in selective conduct as criteria for preference or choice or as justifications for proposed or actual behavior" (85, p. 23). Woodruff identified a value as a "generalized condition of living which the individual feels has an important effect on his well-being" (88, p. 645). DiVesta defined a value as:

> any generalized circumstance of living which an individual consciously or unconsciously believes to have an effect on his well-being or self realization, either directly to himself or to those with whom he is concerned (76, p. 13).

Hawkes identified a personal value as a "circumstance of living, process or a relationship which the individual cherishes as important to his well being and self realization (76, p. 13). Kluckhohn (32) observed that the literature frequently considers values as attitudes, motivations, objects, measurable quantities, substantial areas of behavior, affect-laden customs or traditions, and relationships such as those between individuals, groups, objects, and events. The only common agreement is that "values somehow have to do with normative as opposed to existential propositions" (32, p. 390).

Terms Referred to as Values

Suter (76) reviewed 28 studies concerning terms referred to as values. A total of 109 terms were found in these studies. Fifteen investigators studied family life; 13 researched friendship and health; 12 studied economy; ten examined freedom; seven studied aesthetics, concern for others, education, new experiences, religion, and status; six investigated comfort and efficiency; five studied security and pleasure; and four considered achievement, beauty, convenience, social activity, and equality.

Williams (85) pointed out that a values inventory could never be absolute since a property of valuing is that it can never be closed. Accordingly, it would be neither realistic nor desirable to attempt to obtain a complete inventory and analysis on data concerning values as such. Studies found in the literature that concerned food-related values were conducted by Kohlmann (33) and by Ridley (61).

Characteristics of Personal Values

Concepts

Kohlmann (34) reported there is general agreement among writers that the most basic characteristic of personal values is that they are concepts. Hence, "they are an individual's idea of conditions and objects that give meaning to life for him and of reality as he thinks it ought to be" (34, p. 819). Kluckhohn (32) stated the word value is a union of reason and feeling. Therefore, value has affective as well as cognitive scope. He further stated that both elements must be included in any definition of value. It can therefore be seen that "values

are private or personal in the sense that they are part of the inner life of the individual and differ greatly among individuals" (34, p. 819).

DiVesta referred to concepts as "mental images of all the things an individual has experienced" (76, p. 21). They have been considered as goals to attain. Values were considered to be among these concepts, although concepts were occasionally viewed as routes to attainment of goals. In this manner, values are considered concepts of processes or process concepts which represents the means by which an individual reaches his positive values and avoids negative values in his striving to fulfill the need for self-actualization.

Values may be either positive or negative depending upon favorable or unfavorable associations for the individual's well-being. An individual will value positively certain things which contribute to his well being. Conversely, those things which interfere with his well-being will be valued negatively.

Concepts of the Desirable

Kohlmann (34) stated that a value is thought of as a conception of the desirable. These conceptions are "distinctive of an individual or characteristic of a group" (11, p. 770). An individual's value concepts are the interpretations that he places on various methods, resources, and accomplishments.

In his research of commonality in all human societies, Lasswell (49) established that man's values were based on his needs and wants. He places value upon those things which he must have. Consequently, these become the basis for his decisions and choices.

Stability of Values

Although relatively stable, values are modified as the individual progresses through the life cycle. Such factors as new experiences, expanding knowledge, and choosing among possibilities tend to alter one's set of values. According to Dewey (34, p. 821), "values do and should change as human needs and the human environment change."

Courses of Action

Kohlmann (34) reported that values influence the way an individual will react when confronted with a situation permitting more than one course of action. The following generalization was made concerning values: "If values are clarified, they are more likely to give direction to what one does" (34, p. 820). One's values, therefore, influence the course of action to be taken.

Suter pointed out that "it should be possible to use values as a guide for predicting behavior" (76, p. 22). Thus, a study of the values of retirement-aged men and women should have implications for nutrition education of this age group. Paschal (53) pointed out that knowledge of an individual's value system would assist the educator in predicting how well the information he is attempting to convey will be received and acted upon by the individual.

Implicit and Explicit Values

Each individual has varying degrees of awareness concerning his values. Some of his values may be explicit, and others implicit (34). The explicit values have been defined as those which can be recognized

clearly and expressed verbally. The individual is actually conscious of these values. Implicit values are not clearly defined and must be deduced from the individual's behavior (68). They are unrecognized and unstated suppositions about what is desirable (11).

Values and Learning

"Values are apparently a learned element in behavior" (76, p. 23). Paschal said that values are learned by "valuing; they grow through prizing, cherishing, appreciating, esteeming, holding dear" (53, p. 77).

Suter (76) reported that education and learning involve change. Learning is dependent upon behavioral changes which essentially involve personal values (35).

By their very nature, values are of importance to the individual. Yet certain values will be of more importance than others. Accordingly, one's values are often referred to as a pattern of values or value hierarchy inferring an organization or ranking among the values (34, p. 821). Prescott said that the majority of mature persons consistently try to realize no more than six major values. These values normally have a hierarchical order in which one value is superior, and the others fall into an ordered sequence (34, p. 821).

Values and Behavior

Goals

According to Kohlmann (34), personal values were considered both as means of attaining goals and as ends in themselves. Personal values are viewed as means "when they imply immediate goals but as ends when

they lead toward more universal or ultimate goals" (34, p. 820).

Goals constitute a hierarchy in which nearly every goal originates from a lower goal and leads to a higher one. Therefore, most goals are means to higher ends which ultimately result in ultimate ends or values. Hence, goals and values are arranged along a continuum from the simplest of goals to the ultimate value. Along the continuum, when goals become complex and so long-range they discontinue being goals and assume characteristics of values (34).

Kohlmann (34) reported that values are not the actual goals of behavior, but rather serve as expressions of these goals. Values seem as the criteria against which goals are selected.

Attitudes and Preferences

Attitudes are modified when a value pattern is altered (88). Suter (76) pointed out that the difference between a value and an attitude is that a value represents what is desirable whereas an attitude refers only to that which is desired. A preference is distinguished from a value in that a preference is normally found on the range of experience of an individual and based on moral judgments or generally accepted standards. The procedure by which preferences and attitudes become values is unknown. Preferences and attitudes are also inclined to be altered (76).

Motives

Kohlmann pointed out that personal values have an important role in motivation. "Behavior is adjustive; that is, an individual behaves in favor of the objects or conditions of living which he considers

optimum for his well-being" (34, p. 822). An individual's needs and values initiate his behavior, yet his values guide the behavior that has been initiated. In an attempt to define the involvement of motivation with values, Kluckhohn (32) said that values are the component of motivation that may be referred to as either cultural or personal standards and are not inferred only from immediate tensions or situations.

In his defense of using values clarification techniques in education, Osman (52) stated that, in the final analysis, one's values determine his behavior. "It is values, ultimately, which give a man the stars by which he steers his life" (52, p. 622).

Research Methodology

Various methodologies have been used in the investigation of values. Suter (76) investigated 28 values studies in which 11 different methods were used.

The following theses reported by Suter (76) served as the primary sources of methodology in her study. Research conducted by Barbour (76, p. 27) was to determine if process concepts of a group of selected students changed as they applied learned knowledge of principles and facts. Generalizations pertaining to nutrition were classified according to developmental tasks. These generalizations then served as the basis for teaching. Afterwards, the students were asked to state generalizations. After classification, results yielded that more than half of the generalizations made by the students were correct.

Hawkes (76, p. 27) and DiVesta (76) both used values tests to determine established value patterns in grade-school children.

Responses to interview questions on nutrition determined students' process concepts. Values implied by the process concepts were used in an attempt to determine the goals and values related to nutrition. Distinctive differences in the values of each grade were found.

Hawkes (76) developed a values inventory. By observing the actions, as well as the writings, of students values were selected. Items that represented the values were arranged in groups of threes. The student then ranked the three statements by preference. Hawkes' data provided evidence as to the nature of some values. He determined that values undergo change, increase in complexity, and can either increase or decrease as learning and maturation take place (76, p. 31).

DiVesta (76) employed the concept-approach in his study of adolescent behavior. His hypothesis stated that personal values exist in an order which is ranked from a high positive value, through a neutral area, to a highly negative value. Negative values were thought to play a very important role in a personal scheme of values.

In the area of home economics education, Kohlmann (33) developed a forced-choice instrument that measured selected values of homemakers. An assumption of her study was that an educator who knows the value system of his audience can plan more effective programs. Only two items were placed in each set of the forced choice technique since previous research has indicated difficulty in discrimination among more choices (76). Kohlmann recommended that her instrument could be used by educators as a basis for developing affective educational programs.

Phelan (76) used the Q-technique in her values study concerning financial planning of families. Subjects were interviewed using a

card sorting system. The subject sorted the cards into descriptive stacks which had been labeled "me most of the time," "me half of the time," and "me not at all." This type of system was modified for use in the present study.

Ridley (61) developed a questionnaire to collect data which employed paired comparisons and open-end response methods. Her study concerned the integrational differences existing in the value-attitudes relating to food among the matritineal members of selected families. She found that values tended to remain constant throughout the years with only slight modifications.

Engebretson (76) developed the operational definition which was selected for this study. A projective story-completion instrument was utilized to collect data from groups of wives. The instrument furnished data for development of a typology which was used to identify and classify values. The four types were: traditional, social, autonomous, and the change-prone. The story completion was coded on two themes: form (or response) and emphasis. The story, theme, and type were analyzed to formulate a value. Profiles were then made of the individual and of the group.

The second phase of Engebretson's study was conducted by Martin (76) which also used projective type stories. Its purpose was to explore the values of the entire family. Building on the two previous studies, Schlater (76) endeavored to precisely define the concept of values, thereby making the definition operational in obtaining values data. Intrafamily and interfamily comparisons were made among 51 families. Her findings suggested that it is possible to make predictions about those values that influence family decisions. It was found

that values tend to vary with role, age, and level of education (76, p. 40). The need for professionals to obtain more knowledge of the predictable influences of values was proposed.

Characteristics of the Elderly in the United States

American patterns of living have changed tremendously since the turn of the century. Major changes affecting persons 65 years of age and older have taken place in American culture since 1900 (86).

According to Deibel (16), who used statistics supplied by the United States Senate "Report of the Special Committee on Aging," the following characteristics and changes portray the growing population of the aged:

1. In the past 70 years, the total population of the United States grew to almost three times its size in 1900. The older population has increased to almost seven times its 1900 size and is still growing.
2. The fact that the older population is not homogenous or static cannot be overemphasized.
3. Sixty percent of older Americans are under 75 years of age; half are just under 73; and about a third are under 70.
4. Eighty-one percent are fairly healthy and get along well on their own. Although only 14 percent have no chronic conditions, diseases or other impairments, the vast majority that are affected by such conditions manage by themselves.
5. In 1971, per capita health care costs for older Americans were almost three and one-half times the amount spent for the

younger population. Older people represented ten percent of the population, but accounted for 27 percent of the health care expenditures.

6. In 1971, approximately 25 percent of the elderly had incomes below the official poverty threshold. Many of the aged poor became poor after reaching age 65 because of the decrease in income brought about by retirement from the labor force.
7. At birth, life expectancy is 66.8 years for men, but 74.3 years for women. Therefore, most older people are women.
8. Most older men are married; most older women are widows. There were almost four times as many widows as widowers. Almost three million older people are "functionally illiterate", having had no schooling or less than five years of school.
9. Seven of every ten older persons live in family settings; about a quarter live alone or with non-relatives.

McConnell (44) described Americans over 65 years of age as a "sub-culture" that has as many, if not more, problems as younger people and is more segregated and alienated than almost any other group. The many changes that have taken place in the American social scene of the 20th century are credited with this occurrence (86).

Nutrition of the Elderly

In 1967 and 1968, studies identified the elderly as one of the groups vulnerable to malnutrition due to low income. In the 1969 Select Committee on Nutrition and Human Needs of the United States Senate, special consideration was given to the condition of the aged. At the White House Conference on Food, Nutrition, and Health, concern

for the nutrition of the elderly was repeated. Nutrition was also of major concern at the 1971 White House Conference on Aging. At the latter Conference, the Nutrition Section stressed

> the rehabilitation of the malnourished aged, prevention of malnutrition among those approaching old age, upgrading of food and nutrition services for institutions and home care agencies, improving income, and providing the equivalent of a national school lunch program for senior citizens (65, p. 3).

Nutritionists and dietitians have a professional interest in this segment of our population because of their disproportionate health needs (50).

Research conducted under the national nutrition program (Title IV) of the Older American Act has shown that the nutrition needs of the elderly are great; of greatest need are those with low incomes. "Clearly, a good diet is of the utmost importance in maintaining the quality of life. For the elderly, good nutrition is a must" (59, p. 37).

Howell (28) stated that the causes of poor nutrition in the elderly are more varied and more complicated than for any other age group. Poor nutrition further intensifies the severity of other conditions which accompany aging processes.

The relationship of poor nutrition and the aged's vulnerability to it was explained by their lifestyle (28). Because of forced retirement, the income of an elderly person usually decreases dramatically. Therefore, food choices may be dictated by economics, and a limited dietary may be the result. Research has confirmed that the quality of the diet is positively correlated with income (15).

The nutrition of the aging person is generally believed to be of great importance for both the individual's prospect of survival and for

daily comfort and activity (48). Fry et al. (21) stated that the maintenance of vitality, a healthy psychological outlook, and productive capacity in the elderly age group will benefit society as well as the individuals involved.

Weir et al. (83) stated that the importance of nutrition in the life of any human being cannot be overestimated. One factor that enhances the quality of life is health, and nutrition has been mentioned as an important element in the maintenance of health (4, 23, 60, 78, 89).

Many factors determine the health and longevity of older people (64). The individual has little control over some of these, such as heredity. Other factors that are subject to personal control include food and physical activity. Since the intake of food is one of life's greatest variables (60, 83), it can be controlled or modified. Montagu (46) stated that "the human aspect of the equation" is the most difficult to understand and to manage, as well as being the most significant factor in determining the nutritional behavior of individuals.

Numerous studies of nutritional status of aging populations have been published in the literature (36). Swanson (75) stated that information of this nature is very important in providing groundwork for nutrition education programs for aging persons.

Weir et al. (83) reported that much debate and controversy exist about the requirements of the aged for calories and nutrients. Yet, Watkins has pointed out that a general prescription for the aging population cannot be made (83). "Old age does not have nutrition problems capable of unique solution" (83, p. 267). Berk (5) said that since the aging process is one of decreasing reserves, it brings with

it anatomic and physical changes which are modified by such factors as disease, trauma, and heritage. Much more research is needed on the nutritional requirements of the elderly, but such research is hindered by the wide individual variances of this age group (8).

Concerning the interrelationship of physiology with nutritional status, Stieglitz (74) stated that proper nutrition includes not only the ingestion of adequate and balanced quantities of all essential nutrients, but also the digestion of foods in the alimentary canal, their absorption, transportation, and utilization by the cells. The nutrition of an individual may be impaired at any one or more stages in this chain of events.

With aging, anatomic changes at the cellular level reflect subtle functional disturbances and decreased efficiency of the organism (5). Impaired glucose tolerance in the aged has been found by several investigations (5, 19, 29, 74). As age increases, there is a gradual diminution of basal oxygen consumption. Therefore, there is a gradual reduction of basal metabolism with age. Atrophy of the alimentary mucosa may impede absorption. Volume and acidity of gastric secretions were reduced in the aged surveyed. Enzymes in the gastrointestinal tract decreased in amounts, and achlorhydria was common (40). Liver function is altered with advancing age. Kidney function gradually diminishes with age. Changes in the circulatory system adversely affect transportation of absorbed nutrients. Acid-base balance is less well maintained in the aging. With aging, there is a loss of cells involved in the utilization and storage of all nutrients. Therefore, it can be seen that a multiplicity of physical alterations coexist, affecting the nutritional status of the individual.

Because of the decrease in physical activity and basal metabolism with age, the reviewed studies stated that caloric intake should be reduced as persons become older. Concerning other nutrients, however, there was general agreement that those requirements were the same as those of younger adults (5, 27, 29, 42, 47, 58, 77).

Common trends of nutrient intakes among the aged in surveys of food consumption have been discovered (3, 8, 15, 31, 37, 39, 70, 77, 80). In a nationwide food consumption study in 1955, it was found that households with homemakers 60 years and older had poorer diets with respect to every nutrient studied than households with younger homemakers. Calcium, ascorbic acid, and riboflavin were the nutrients most likely to be supplied in less than recommended amounts (8, 80).

More recent dietary surveys have indicated that the diets of some persons are deficient chiefly in calcium and ascorbic acid (15, 21, 77). Batchelder (3) found that the average calcium intake of the group studied was no more than enough to prevent loss of calcium from the body. Ascorbic acid intakes were too low to promote satisfactory serum levels and to maintain healthy gums. Nutrients which were also frequently found to be low were calories, vitamin A, thiamin, and iron (8). In their study of 104 men and women aged 51 to 97 years of age, Davidson and co-workers found that intake of nutrients was highly variable and that there was an association of poorer diets in individuals with low incomes (15).

Some of the dietary surveys (21, 37, 72) established that persons past 65 had progressively poorer diets than younger adults. LeBovit (37) found that the quality of the diets studied was directly related to the age of the homemaker.

Laboratory and clinical indices of nutritional status, as well as dietary intake, were included in some of the studies reviewed (7, 12, 15, 17, 72). Signs of improper nutrition that were most often noted were obesity, low hematocrit values, and low blood values for ascorbic acid and thiamin. Brin et al. (7) found that the need to use subjects who were willing to cooperate may exclude many who were less well nourished which could result in unintentional bias. Thus, the nutrition of the aged may be poorer than indicated by published surveys.

In the San Mateo study (12), a positive correlation was found between dietary cholesterol and serum cholesterol levels in both sexes, and a similar correlation was found between fat intake and serum cholesterol levels. High levels of hemoglobin were positively correlated with higher intakes of both protein and iron (22). The overall mean of blood glucose levels for both sexes was found to be significantly higher than means usually quoted for young adults. Consequently, diabetes has been found to increase with age (77).

While the basis for good health is optimum nutrition, the cause of ill health is not always malnutrition from bad dietary practices. Knowledge of common nutrition problems should be considered along with the special needs of the individual. Chronic disease states have their influence on nutritional requirements and should be considered. As Krehl (36) pointed out:

> An adequate diet and sound nutritional practices, therefore, remain key factors not only in the prevention and limitation of the aging process, but also in the maintenance of the quality of life for the aged (36, p. 76).

Factors Affecting Nutritional Status of the Elderly

Watkin (82) stated that human nutrition cannot be defined narrowly. Human nutrition encompasses:

> the production, distribution, cost, availability, accessibility, and acceptability of food and, as such, interfaces with poverty, education, and a variety of circumstances in which the elderly are entrapped (82, p. 40).

Thus, many factors such as income, physical status, psychological state, cultural implications, and sociality should be considered in relation to the elderly and nutrition (6, 54).

McKenzie (45) stated that there was an abundance of evidence to support the statement that food choice is related to income. Cohen (13) has further pointed out that elderly people suffer malnutrition primarily because of lack of funds. Consequently, the limited allotment for food restricts purchases of a variety of foods. Riggs (62) reported that animal-source protein foods are not purchased due to their cost. The elderly buy primarily carbohydrates and other cheaper foods. This will, of course, limit the nutrients available for consumption.

Since the majority of our elderly population have at least one chronic disease in addition to the degeneration associated with aging (16), the physical abilities of this age group are lessened. This fact has far-reaching implications since it aids in promoting isolation from society. Decreased mobility and diminished health affect the physical limits of the elderly's lives, while the loss of one's role in society and feelings of rejection influence their psychological outlook (55).

Sherwood (67) pointed out that old age is often a time of loss for the elderly physically, economically, and socially. Due to such factors

as death and societal mobility, their number of contacts is decreased (29, 79). Therefore this age group may feel further isolated and become increasingly apathetic toward life in general and toward nutrition in particular (55).

Although culture and ethnicity are not as precise a variable to define in the United States as in other countries, certain characteristics of the elderly's dietary behavior can accurately be considered "culture bound" (29, p. 36). Culture consists of values, attitudes, habits, and customs that are acquired by learning as a young child (20). According to Dickens (18), the resultant food preferences remain fairly stable throughout life. By the same token, the fact that culture is learned means that it is subject to change, and "this is the most optimistic fact about human behavior" (20, p. 336).

The Need for Education of the Elderly

In his editorial on the quality of life for the elderly, Danilnvicius (14) stated that for an individual to live a full life regardless of age, he must remain curious, active, and interested and involved in the betterment of his own position and in contributing as much as he can to society.

> Education should be a continuous process in human life. It is never too late to learn new skills, to adjust old knowledge to new conditions, or to continue being happy and useful to others (14, p. 1424).

The edlerly in our population acquired their formal education long ago, and are now faced with numerous problems without adequate resources to deal with them. McClusky (43) pointed out that while the speed of learning, as well as other functions, may slow down in aging, the

ability to learn remains constant.

The personal and social problems of the elderly are compounded by a rapidly changing society that forces its corresponding changes in life-styles on them. Hiemstra (25) reported that change is occuring so rapidly that "continual learning is mandatory in order to cope with immediate behavioral needs" (25, p. 101).

> At a time when income, health, status, and other assets are often diminished, the power of the elderly to control their own destinies is enhanced by the kinds of education that helps to master, rather than be mastered by, change (25, p. 101).

Peterson (56) agreed that the challenge of aging is the challenge to learn new ways of living. Educational programs for older adults must be developed to help them acquire new competencies to meet the new demands that have emerged as the result of the limiting of their physical and social environments.

One of the recommendations of the 1971 White House Conference on Aging was that educational programs be made available to the elderly "to understand practices for good health, including nutrition" (87, p. 659). Education should help them adjust to a new way of life that is satisfactory to them, as well as contributes to society (43). According to 1971 estimates, less than half of our nation's aged received sufficient calories and nutrients to insure physical well being.

Piper stated a commonalty among older Americans:

> independence is almost as valuable as life itself. It is the touchstone for self-respect and dignity; it is their measure of importance to others; and it is their source of strength for helping those around them (52, p. 461).

Better nutrition through education is one means of attaining independence and effectiveness (1, 36).

CHAPTER III

PROCEDURE AND METHODOLOGY

The purpose of this chapter was to identify the procedures used to develop the testing instruments, to describe the methods used, and the analysis of data which enabled the researcher to attain the objectives of this research study.

The procedure for this research project was based on that of Suter (76) who reported the procedure in 1971. Modified for this project, the procedures were: (a) adoption of the definition of the word value from the previous research and identification of the food-related values which were believed to be the most important to study; (b) determination of the optimum number of values to investigate food-related problems of the elderly; (c) development of an interview to enable each participant to indicate the degree to which each of the six food-related value statements described his desired behavior; (d) development of a values test instrument by which the participants chose between 45 pairs of value statements to give an indication of the relative importance of each value; (e) analysis of data of the values test instrument to determine the hierarchal ranking of food-related values; and (f) presentation of implications for educational emphasis utilized by nutritionists and educators working with the elderly.

Selection of the Values

Following the acceptance of an operational definition of the word value, the next step was the selection of the values, their definitions, and the number of values to be included in the study. The criteria established for the selection of values were those of Suter (76): (a) the values be food-related, (b) the values be of primary importance to retirement-aged people, and (c) the values and definitions be compatible and consistent with the operational definition of value.

It was determined from the experiences of other investigators that an interview or test should not require more than 30 minutes to complete (76). The age group was considered as well as the fact that interest might be lost if the time to complete an interview or test exceeded 30 minutes. Because of the age factor, Barbour anticipated reading the value statements aloud to each participant. These factors meant that fewer values could be investigated and/or fewer statements related to the values could be included for study. Therefore, Barbour (2) elected to choose six values as the optimum number to be included in this study.

The following six values which met the criteria for selection were chosen for this investigation: (a) health, (b) social activity, (c) economy, (d) status, (e) security, and (f) education. The definitions are given on page 69.

Selection of the Sample

The sample for this study was limited to those 150 elderly men and women of Stillwater, Oklahoma who had participated in the food-related values interview conducted by Barbour (2) in 1973. The researcher telephoned or visited each person whose name appeared in the original

list of subjects used by Barbour (2). This final phase of the study was explained to those subjects contacted, and each was asked if he would care to participate again. If so, a convenient time for the subject to meet with the researcher was determined. As a result of the response of the men and women contacted, a total of 110 of the original sample of 150 were included in this final phase of the study.

Development of the Interview

The six values selected for the study by Barbour were: (a) health, (b) social activity, (c) economy, (d) status, (e) security, and (f) education. Twelve food-related statements were prepared for each value. It was attempted to have the descriptive items (a) related to only one of the values included in the study, (b) worded to be compatible with this age group, (c) expressed in terms of the behavior of this age group, (d) worded as consisely as possible, (e) unbiased, and (f) written in the present tense (76).

The statements were reviewed in 1973 by the following procedure. A panel of three experts in the fields of nutrition and family relations who had had experience in working with this age group were selected to review the statements. Each was given the names of the values, their definitions, the statements, and directions. The statements were typed on the left side of the page with columns headed by the six values on the right side of the page. The reviewers were requested to read the value-related statements and place a checkmark in the column headed by the value which he believed the statement best represented (Appendix A). The results of the value statement evaluations of the three experts were then tabulated. The evaluators suggested rewording of some statements.

The statements were submitted a second time to the panel of experts. All three evaluators were in complete agreement on eight statements for the values economy, education, social activity, and status. For health, there was 91 percent agreement, and for security, there was 83 percent agreement among the panel members. The evaluators had difficulty distinguishing between statements related to health and security.

The final eight statements selected for each value were typed on 3 x 5 cards, randomized, numbered, and used in the interview. The final 48 statements selected and the key to the value statements are given in Appendix B.

Since no significant difficulty was experienced in the pretest, the same interview and procedure was used with the sample of 150 elderly men and women (Appendix C).

Pretesting the Interview

In 1973, Barbour pretested the interview at the Senior Citizens Center in Stillwater, Oklahoma. Four men and four women participated in the pretesting. Each of the 48 statements was typed on a 3 x 5 card. The purpose of the interview and directions for selecting the categories in the card-sort procedure were given. The participant indicated for each statement the best description of his behavior by selecting one of three categories and placing the cards in front of each category card. The three categories used were: (a) This is me ALL of the time; (b) This is me SOME of the time; and (c) This is me NONE of the time (76).

Development of the Values Test Instrument

In the interview, the participant indicated how each value statement best described his behavior. A score was computed for each value statement on the basis of an assigned numerical value which denoted the degree to which the value statement indicated his behavior. The scores were designed as follows:

2 = This is me ALL of the time.

1 = This is me SOME of the time.

0 = This is me NONE of the time (76).

The three statements of each value that received the highest scores tabulated from the interview were selected for use in constructing the final values test instrument.

The forced-choice paired comparison technique of determining the hierarchal ranking of the values was used in the values test instrument. In Table IX, Appendix D, is the computer-designed matrix indicating the total of 90 possible pairs of value statements. Since it was finally decided that the test should contain no more than 45 paired statements, it was necessary to select 45 of the possible 90 pairs. The encircled X's in Table IX designate the value statements paired in the values test instrument. A computer program insured that each value would be paired with the other five values equally and that the pairing was completely random. Then the placement of the pairs in the final values test presentation was randomized.

Pretesting the Values Test Instrument

The values test instrument consisting of 60 pairs of value statements was pretested with eight women at the Senior Citizens Center in

Stillwater, Oklahoma. An introduction was given of the previous phase of this study (2) emphasizing the importance of this last phase of the research so that the experiment could be completed. The directions were read aloud to the participants, and any questions were answered before timing of the instrument began. The participants were encouraged to comment on the length of the instrument, clarity of directions and statements, as well as any other suggestions for improvement.

The results of pretesting the instrument indicated that this form contained too many pairings, thus making it too lengthy. Since the statements do repeat, this served as a source of confusion to several of the participants since they felt they had to answer in the same manner when a statement reappeared. For these reasons, an alternate matrix consisting of 45 pairs of value statements was decided upon as the final test form. The directions on the values test instrument were clarified to include a sentence about the repetitiveness of the statements (Appendix E).

Since the values test instrument consisted of value statements, there was no statistical test for validation purposes. The split-half technique, as well as other statistical tests, is based on a right/wrong type of scoring. Because this instrument concerned values, any of the known statistical tests could not be used. Judgement of the statements by the panel of experts served as the validation procedure. Since there was no statistically validating test to determine if the statements conveyed the idea they were supposed to for the value represented, this was one of the limitations of this research.

Collecting the Data

The researcher attempted to telephone or visit each person who had participated in the food-related values interview in 1973. When contact was made, the researcher gave a brief account of the previous research, emphasizing this final phase so that the entire project could be completed. The participant was told that the values test would not take more than 30 minutes to complete and was asked for a convenient meeting time. The researcher was able to locate and individually interview 110 of the original 150 subjects. Approximately three months were spent in contacting and personally interviewing the sample.

Method of Data Analysis

Interview

The score results of the interview were computed, based on the calculations described in the section "Development of the Values Test Instrument" in this chapter. The total scores were assigned a rank with the highest score being assigned the rank of number one (76).

Values Test Instrument

The results of the values test instrument were tabulated for data analysis. A score was computed for each value statement by assigning a numerical value to the two possible alternatives for each statement. The scores were computed as follows:

1 = The value statement being chosen

0 = The value statement not being chosen

A total score for each value statement was tabulated. The total of

the three statements for each value was calculated by adding the individual totals of each of the three statements. The total scores were assigned a rank with the highest score being given the rank of number one (76).

CHAPTER IV

RESULTS AND DISCUSSION

In this chapter, the data received from the food-related values interview and values test and the analysis of these data are reported. The researcher was able to locate and individually interview 110 of the 150 subjects who had participated in the food-related values interview in 1973. This research was an attempt: (1) to complete the food-related values study of elderly men and women by administering the food-related values test to the original sample; (2) to identify variables which are of significance related to the values identified; and (3) to make suggestions and recommendations to nutrition educators so that emphasis will be placed on those areas of nutrition education identified as important.

The Values Interview

A random sample of 150 elderly men and women completed the values interview in 1973. The hierarchal ranking of the food-related values by the entire sample is given in Table X. Table XI represents the ranking of the values by the 30 males of the sample and Table XII gives the values ranking by the 120 females of the original aample (Appendix F). As depicted in these two tables, both the male and female segments of the sample ranked the values identically. The hierarchal ranking of the value statement numbers which were selected for use in the test instrument is presented in Table XIII (Appendix F). The statements are given

Appendix B.

Values Test Instrument

One hundred and ten, of the original random sample of 150 elderly men and women who had completed the interview, completed the test instrument. The results of the values test instrument of the total sample are given in Table I. This method of presentation depicts the selection of each value when paired with the other five values. The total for each value was compared with the total number of times the value appeared in the instrument to determine its ranking in the hierarchy. Since each value statement occurs an equal number of times, the three statements for each value appeared a total of 1,650 times. Because the method of data analysis for the interview and values test were different, the actual scores of the two tests cannot be equated numerically. However, a comparison of the hierarchal ranking of the values in each test can be made. Security supplanted health as the most valued concept, although health was ranked second by the total sample. Education, which had been ranked fourth in 1973, fell to the least valued concept in the values test.

Comparing the interview and values test by sex, it can be noted that the men consistently ranked health as most valued in both instruments, although security superceded social activity as second in rank in the values test. Status was again ranked least valued by the men.

The female segment of the sample replaced health with security as most valued in the values test. Education succeeded status as least valued in the values test, although status was still ranked low.

TABLE I

HIERARCHAL RANKING OF VALUES DETERMINED BY THE TOTAL SAMPLE OF 110 ELDERLY MEN AND WOMEN*

Value Selected	Value Not Selected							
	Health	Education	Status	Social Activity	Economy	Security	Total	Rank
Health	0	238	226	195	193	179	1,031	2
Education	92	0	167	121	113	98	591	6
Status	104	163	0	147	97	98	609	5
Social Activity	135	209	183	0	203	119	849	3
Economy	137	217	233	127	0	90	804	4
Security	151	232	232	211	240	0	1,066	1

*The three statements for each value appeared a total of 1,650 times in the 110 instruments.

TABLE II

HIERARCHAL RANKING OF VALUES DETERMINED BY THE 18 MALES OF THE SAMPLE*

Value Selected	Value Not Selected							
	Health	Education	Status	Social Activity	Economy	Security	Total	Rank
Health	0	38	42	41	41	37	199	1
Education	16	0	31	24	18	20	109	5
Status	12	23	0	28	16	19	98	6
Social Activity	13	30	26	0	30	17	116	4
Economy	13	36	38	24	0	18	129	3
Security	17	34	35	37	36	0	159	2

*The three statements for each value appeared a total of 270 times in the 18 instruments.

TABLE III

HIERARCHAL RANKING OF VALUES DETERMINED BY THE 92 FEMALES OF THE SAMPLE*

Value Selected	Value Not Selected							
	Health	Education	Status	Social Activity	Economy	Security	Total	Rank
Health	0	200	184	54	152	42	832	2
Education	76	0	136	97	95	78	482	6
Status	92	140	0	119	81	79	511	5
Social Activity	122	179	157	0	173	102	733	3
Economy	124	181	195	103	0	72	675	4
Security	134	198	197	174	204	0	907	1

*The three statements for each value appeared a total of 1,380 times in the 92 instruments.

Tables IV through VIII illustrate the hierarchal ranking of the values in relation to the bibliographical data of the subjects. Each table lists the codes for each question, with the frequency or number of observations in each code.

In Table IV, it can be seen that the occupations making up the majority of the sample, the teachers, housewives, and domestic service workers ranked security and health as first and second, respectively. The housewives ranked education as least valued, the domestic workers tied education and status as least valued, and the teachers ranked status as least valued. The other occupations ranked the values similarly as the table illustrates.

Table V illustrates the hierarchal ranking of the values by level of education. Security was ranked as most valued by all but the lowest of the education levels, where health was selected as number one. The high frequency of college graduates in the sample is because most were retired faculty of the university. The next highest frequency, those with eighth grade education or less, ranked health as most valued, followed by security and economy. Education was ranked as least valued. Overall, economy and status tended to become less important as level of education increased, while education was ranked higher by those with more education.

Tables VI and VII provide insight into the living situations of the subjects. It can be seen in Table VI that 57 lived alone and 46 lived with a spouse. Security or health was again ranked most valued by this majority with status or education ranked lowest. It is interesting to note that those who lived alone and women with spouses ranked security as most valued, while the men with spouses ranked health first. Table

TABLE IV

HIERARCHAL RANKING OF VALUES IN RELATION TO OCCUPATION

Code No.*	1	2	3	4	5	6	7	8	9
Frequency	27	2	3	13	9	34	9	7	6
Health	2	3	1	2	1	2	2	2	2.5
Education	5	4	4	5.5	4	6	5	6	4.5
Status	6	5.5	6	5.5	5	5	6	5	4.5
Social Activity	3	2	5	3	6	4	4	3	1
Economy	4	5.5	3	4	3	3	3	4	6
Security	1	1	2	1	2	1	1	1	2.5

*Code No. 1--teachers
Code No. 2--medical professionals
Code No. 3--other professionals
Code No. 4--domestic services
Code No. 5--manual laborers
Code No. 6--housewives
Code No. 7--service occupations
Code No. 8--office workers and government workers
Code No. 9--business (owner and/or operator)

TABLE V

HIERARCHAL RANKING OF VALUES AS DETERMINED BY EDUCATIONAL LEVEL

Code No.*	1	2	3	4	5
Frequency	28	12	15	19	36
Health	1	2	2	3	2
Education	6	6	5	5	5
Status	4	5	6	6	6
Social Activity	5	4	3	2	3
Economy	3	3	4	4	4
Security	2	1	1	1	1

*Code No. 1--eighth grade or less
Code No. 2--attended high school
Code No. 3--graduated from high school
Code No. 4--attended college
Code No. 5--graduated from college

TABLE VI

HIERARCHAL RANKING OF VALUES AS DETERMINED BY FAMILY CODE

Code No.*	1	2	3	4	5	6
Frequency	34	12	2	3	57	2
Health	2	1	2.5	1	2	4
Education	5	4	6	3	6	6
Status	6	6	4	6	5	5
Social Activity	3	5	5	5	3	1
Economy	4	3	2.5	4	4	3
Security	1	2	1	2	1	2

*Code No. 1--live with husband
Code No. 2--live with wife
Code No. 3--live with children and/or grandchildren
Code No. 4--live with relatives
Code No. 5--live alone
Code No. 6--combination of two of the above categories

TABLE VII

HIERARCHAL RANKING OF VALUES AS DETERMINED BY FOOD PREPARATION CODE

Code No.*	1	2	3	4	5
Frequency	85	11	1	8	5
Health	2	1	3.5	1	1
Education	6	5	1	6	5
Status	5	6	6	2	4
Social Activity	3	3	3.5	5	6
Economy	4	4	5	4	3
Security	1	2	2	3	2

*Code No. 1--by self
Code No. 2--by spouse
Code No. 3--by relatives in home
Code No. 4--other sources
Code No. 5--two or more of above categories

TABLE VIII

HIERARCHAL RANKING OF VALUES AS DETERMINED BY SOURCES OF NUTRITIONAL INFORMATION

Code No.*	1	2	3	4	5	6	7	8
Frequency	1	0	1	0	3	0	1	104
Health	1	0	1.5	0	1.5	0	1	2
Education	3	0	3	0	5	0	2	6
Status	5	0	6	0	6	0	4.5	5
Social Activity	6	0	4	0	4	0	4.5	3
Economy	4	0	5	0	3	0	6	4
Security	2	0	1.5	0	1.5	0	3	1

*Code No. 1--diet books and magazines
Code No. 2--dietitians
Code No. 3--extension
Code No. 4--clubs or organizations
Code No. 5--friends or family
Code No. 6--newspapers, radio, television
Code No. 7--general
Code No. 8--two or more of previous codes

VII shows that 85 of those interviewed prepare their own meals, and followed the over-all trend of ranking security, health, and social activity as numbers 1, 2, and 3 in degree of importance. The majority of this group were women, while 11 subjects whose spouses prepared meals were men. They ranked health as most valued and security second.

The researcher wanted to know resources used by this age group to learn more about foods and nutrition. As can be seen in Table VIII, 104 of the 110 participants indicated that they utilized two or more of the listed resources to learn new information concerning foods and nutrition. Newspapers, radio and television were utilized by all subjects. Friends and/or family were also frequently utilized as information sources. Diet books and magazines were moderately used, while dietitians, extension and other clubs or organizations were infrequently utilized. The ranking of the values in Table VIII is identical to the ranking by the total sample.

The Values Test Instrument

The test instrument used for collection of data for the food-related values test is given in Appendix E. This instrument was administered individually to 110 elderly men and women in Stillwter, Oklahoma over approximately a three-month period.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The previous chapter of this research presented the analysis of data collected from the food-related values interview in 1973 and the values test instrument administered to 110 of the 150 original sample of elderly men and women in Stillwater, Oklahoma. Analysis of the data collected provided information from 73 percent of the sample that had participated in the first part of this research, the food-related values interview, in 1973.

This chapter summarizes the results of the study to determine the food-related values of a random sample of elderly men and women. These values are believed to be important in developing effective nutrition education to aid in improving food habits of this age group.

The values studied were: (a) health, (b) education, (c) status, (d) social activity, (e) economy, and (f) security. The ranking of the six values was accomplished using a card-sort interview and a paired forced-choice test. One hundred and fifty randomly selected elderly men and women participated in the values interview in 1973, and 110 of those original 150 took part in the second part of this research project of the values test. The interview and the test instrument were both pretested at the Senior Citizens Center in Stillwater, Oklahoma.

Summary of Findings

The results of the values interview conducted with 150 elderly men and women in 1973 indicated the following hierarchal ranking of food-realted values from most valued to least valued: (a) health, (b) social activity, (c) economy, (d) education, (e) security, and (f) status.

The results of the 110 elderly men and women who completed the values test instrument composed of forced-pairing of value statements yielded the following hierarchal ranking of the same values: (a) security, (b) health, (c) social activity, (d) economy, (e) status, and (f) education.

A comparison of the results of the interview and the test instrument showed that over the three year period two of the values were altered substantially, while the remaining four remained in similar positions in the hierarchy. Security became the most valued concept of the total sample, replacing health. In 1973, security had ranked fifth in importance. Education, which was fourth in 1973, fell to the least valued concept in the test instrument. The other four values either rose or fell one rank as evidenced by the results of the values test.

The identified variables influenced ranking of the food-related values. Although only 18 men participated in this last half of the study as compared to 92 women, the men ranked health as most valued and status as least valued. The women ranked security as most valued and education as least valued. The majority of the occupations, such as teachers, housewives, and domestic workers, ranked security and health as first and second in rank. Education or status was selected as least valued by the majority. Security was ranked as most valued by all but

the lowest of the education levels. Economy and status became less important as level of education increased. Women, either living alone or with a spouse, ranked security as most valued, while the men with spouses ranked health as first. The majority of the sample prepared their own meals and followed the total sample's ranking of security, health, and social activity as numbers one, two, and three in importance. One hundred and four of the total sample of 110 utilized two or more of the listed resources of food and nutrition information. Various media was used by all of the subjects, while dietitians and Extension specialists were infrequently utilized as resources.

Conclusions

The results of this study show that the combined use of the food-related values interview and the values test instrument is one method of identifying the priority of certain values of elderly men and women. Furthermore, the values identified as important could provide a basis for developing nutrition education curricula by nutritionists and educators.

Education should be based on the needs of the target audience. People learn more easily and quickly when functioning in their areas of interest. The review of literature affirmed that values can affect the individual's participation in educational programs. Therefore, the need for identification of values is warranted.

It is further concluded that since the ranking of the identified values changed over a period of approximately three years, their resultant importance also was altered. Security, which in the interview, was one of the least important values, became the highest ranked value.

Education, which had been moderately important, fell to least important in the values test. The other four values remained in similar positions in the hierarchy.

The literature has shown that values do change over time. This research substantiated the fact that values do change and are not constant. The implications for planning of education curricula are obvious. The values of a target audience should be incorporated into emphasis given to subject matter. The materials selected and methods of presentation also should be modified to accommodate the intended audience.

Recommendations

On the basis of the findings and conclusions of this study, the researcher proposes that:

1. The values interview and test be conducted over a wider geographical area.
2. The same procedure be utilized to determine the value scales of other age groups.
3. The hierarchal ranking of values be used by nutritionists and educators in developing nutrition education for the elderly.
4. Since the measured value scales are not a complete or total inventory, it is recommended that companion inventories for this age group be developed and utilized, if available.

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APPENDIXES

APPENDIX A

EVALUATION OF VALUE STATEMENTS BY PANEL OF EXPERTS

EVALUATION OF STATEMENTS WHICH IMPLY A FOOD-RELATED VALUE OF STILLWATER OLDER PEOPLE

Directions

On the following pages are 72 statements, each related to one of the values defined on the attached page. Please place a check (√) in the column headed by the value to which you believe the statement is related. These columns are at the right side of the pages. Consider the definition of the value given here in making your decision. Please check one value for each statement. Do not leave any blanks. If you wish to suggest a way to re-word the value statement write your suggestions below the statement. If you think the value statement does not imply any of the six values, please write (none) below the statement. Your cooperation is much appreciated and is of valuable assistance to the researcher.

Researcher:

Dr. Helen F. Barbour

HEW 416

College of Home Economics

Oklahoma State University

Stillwater, Oklahoma 74074

X-6096

Name of the Evaluator:

Address where you wish to receive mail:

Your Official Title at OSU:

STATEMENTS ABOUT FOODS WHICH IMPLY A

FOOD-RELATED VALUE OF STILLWATER

OLDER PEOPLE

	Implied Values					
	Economy	Education	Health	Security	Social Activity	Status
1. I have a physical examination at least once a year to try to find and treat any condition which may need attention.						
2. When I read about all the "diet foods" in the stores and how important they are for health I worry about whether I should use them.						
3. I often plan to cook enough food at one time to use for several meals.						
4. I ask my doctor, or a dietitian, where I can find an explanation of why I need less food than younger people.						
5. I learn more about what foods I should eat by talking with people who are trained to know this.						
6. I like to be the first person in my group of friends to serve a special new food.						
7. I enjoy taking food to people who can't go out, and visiting with them.						
8. I am afraid that I will make a mistake in following my special diet as I don't know how to avoid or prepare some of the foods listed in it.						
9. When they are available I attend study groups taught by a person trained in food and nutrition.						
10. I read many recent books and articles on food and diet in order to impress other people with my knowledge.						

	Implied Values					
	Economy	Education	Health	Security	Social Activity	Status
11. When friends plan a surprise birthday party for me with a cake, candles and other refreshments, it makes me feel happy to be remembered.						
12. I do not buy "ready to serve" foods when they cost more than those I can make.						
13. Sometimes I worry about whether I will have enough money to buy the foods I need.						
14. It is hard for me to read the labels on the cans and packages when I buy food.						
15. I listen to the radio or television, or read a newspaper or book, at mealtimes when I am alone.						
16. I am concerned about the food served to nursing home patients and how I will get along if I have to eat it.						
17. I buy food in as large amounts as I can use because it costs less and saves me trips to the store.						
18. I try to take part in group activities often to enjoy old friends and make new ones.						
19. I am proud to serve home grown, frozen or canned foods to my friends and family.						
20. I read bulletins and magazines on how to prevent food poisoning by handling and storing foods wisely.						
21. I like to help celebrate such occasions as wedding anniversaries, birthdays, and retirement parties at which food is served.						
22. I enjoy going out to eat with friends and family.						

	Implied Values					
	Economy	Education	Health	Security	Social Activity	Status
23. I compare prices between the neighborhood grocery and the supermarket before I buy.						
24. I try to buy foods when they are in season as they cost less and taste better.						
25. I read articles in newspapers and magazines about the kind and amount of foods I need to stay healthy.						
26. I try to keep from being too fat or too thin by reading about what foods to eat to control body weight.						
27. I try to buy foods on special sales (lower prices) when I go to the grocery store.						
28. On holidays, or special days, I like to share favorite foods with my family or friends.						
29. My family cans or freezes foods for later use while they are plentiful and reasonable in price.						
30. I try to remember that there is no one food that can prevent or cure many kinds of illnesses.						
31. I read all I can find about organic foods and why many people claim they are superior in food value.						
32. If my doctor puts me on a special diet I listen carefully and follow the directions the doctor or dietitian gives me.						
33. I try to learn the names of food nutrients I need and how my body uses them.						
34. I see or talk with my doctor soon if I lose my appetite or have trouble digesting the food I eat.						

	Implied Values					
	Economy	Education	Health	Security	Social Activity	Status
35. It makes me feel important to be included in a group of friends who are planning to go out to eat together.						
36. I enjoy eating meals in different places such as the kitchen, living room, porch, or fixing a picnic and sharing it with friends.						
37. I eat away from home less since the cost of food has gone up in public eating places.						
38. I like to attend sunday school or church dinners and have fellowship with friends who have common interests and ideals.						
39. I like to have friends as my guests at a meal followed by playing games and visiting.						
40. I enjoy covered dish meals when every one brings food and shares it with each other.						
41. I am concerned about how I can feed myself if I get sick or fall and am unable to walk.						
42. I sometimes wonder how I will manage to get to the grocery store when I can no longer drive my car.						
43. I will wait until later to buy food if I can get a ride to a store that sells it cheaper.						
44. I keep food supplies and cooking equipment down low enough that I can reach them to prevent falls.						
45. It is reassuring to me to have a food freezer in which I can store meats, fresh vegetables and fruits bought during the plentiful seasons.						
46. I ask my doctor about taking vitamins, or other food supplements advertized, before I take them.						

	Implied Values					
	Economy	Education	Health	Security	Social Activity	Status
47. I worry about getting enough of the right kind of foods to keep my bones from breaking easily.						
48. I go to meetings to hear experts on diet explain what kinds and amounts of food are needed daily to stay well.						
49. If some of my friends recommend a special diet they have heard about I check with my doctor, or a dietitian, before I go on that diet.						
50. I exercise out-of-doors some every day that my strength and the weather permits me to do so.						
51. I try to eat a variety of food every day so that my body will have all the materials it needs to help me stay well.						
52. If my food money runs out I don't know how to apply for Food Coupons.						
53. Before I read a book or magazine on food and diet I ask an expert whether the material is considered acceptable and agrees with recent scientific knowledge.						
54. I dread going to the grocery store since traffic is fast and I am afraid I may get hit by a car.						
55. When I am a guest at a meal in a friend's home it is pleasing to have them remember and serve my favorite foods.						
56. I believe I feel better when I eat food at regular meal times throughout the day.						
57. I seldom entertain people at meals because food costs too much.						
58. I spend more money than I can easily afford in order to be seen eating with friends at the better restaurants.						

	Implied Values					
	Economy	Education	Health	Security	Social Activity	Status
59. It makes me happy to be able to share extra nice foods that I have grown, caught or bought with my family and friends.						
60. I like to belong to organizations in which we get together to eat and then hold our meeting.						
61. I listen to the radio or watch television to try to learn what kinds of food I should eat.						
62. I am pleased when guests at my home ask how food served to them was prepared or where it was purchased.						
63. If I feel lonely and depressed I telephone or visit some friend, or take food to someone who is less fortunate than I am.						
64. I like to have enough food in the house that I can manage if the weather is bad and I can't go to the grocery store.						
65. I prefer to have simple, good food that doesn't take too much time and energy to prepare.						
66. When I tell friends how to prepare a food a family member or I have made I mention only ingredients with well known brand names to impress them.						
67. I do without some foods that I think are good for me when they are very expensive.						
68. I control my weight by constantly restricting my food intake so that I will have a figure that others will admire.						
69. I think the sharing of food with a group of friends and acquaintances helps develop a feeling of friendliness among them.						

	Implied Values					
	Economy	Education	Health	Security	Social Activity	Status
70. I try to keep informed on what food labels tell and how I can use this information when buying food.						
71. I encourage my family members to prepare better meals than those prepared by our friends.						
72. I enjoy having a friend invite me to be their guest for a meal at their club, a special dining room or other guest meal event.						

DEFINITION OF THE TERM VALUE

The Six Selected Values

Values: Values are conceptions of the desirable which affect an individual's choices among possible courses of action.

Economy: Use of money, goods, services, and time to obtain the greatest amount of return from the resources used for food.

Education: Purposeful improvement involving some form of food and nutrition learning for self or others toward whom one feels close.

Health: State of mental, physical, and social well-being.

Security: Protection against anxiety, fear, or danger.

Social Activity: Planned or unplanned companionship and pleasurable activities with one's associates.

Status: Holding a position equal to or better than other people with whom a person is associated.

APPENDIX B

FOOD-RELATED VALUE STATEMENTS

FOOD-RELATED VALUE STATEMENTS

Health

(33) 1. I believe I feel better when I eat food at regular meal times throughout the day.

(44) 2. I try to eat a variety of foods every day so that my body will have all the materials it needs to help me stay well.

(7) 3. I try to remember that there is no one food that can prevent or cure many kinds of illnesses.

(8) 4. I have a physical examination at least once a year to try to find and treat any condition which may need attention.

(29) 5. If my doctor puts me on a special diet I listen carefully and follow the directions the doctor or dietitian gives me.

(24) 6. I exercise out-of-doors some every day that my strength and the weather permits me to do so.

(23) 7. I see or talk with my doctor soon if I lose my appetite or have trouble digesting the food I eat.

(11) 8. I am concerned about the food served to nursing home patients and how I will get along if I have to eat it.

Education

(22) 1. I try to keep informed on what food labels tell and how I can use this information when buying food.

(16) 2. I try to learn the names of the food nutrients I need and how my body uses them.

(39) 3. I read bulletins and magazines on how to prevent food poisoning by handling and storing foods wisely.

(15) 4. I learn more about what foods I should eat by talking with people who are trained to know this.

(16) 5. I listen to the radio or watch television to try to learn what kinds of food I should eat.

(36) 6. I try to keep from being too fat or too thin by reading what foods to eat to control body weight.

(34) 7. I read all I can find about organic foods and why many people claim they are superior in food value.

(6) 8. I go to meetings to hear experts on diet explain what kinds and amounts of food are needed daily to stay well.

Status

(46) 1. I am pleased when guests in my home ask how food served to them was prepared or where it was purchased.

(14) 2. It makes me feel important to be included in a group of friends who are planning to go out to eat together.

(25) 3. I am proud to serve home grown, frozen or canned foods to my friends and family.

(27) 4. I control my weight by constantly restricting my food intake so that I will have a figure that others will admire.

(37) 5. I like to be the first person in a group of friends to serve a special new food.

(30) 6. I read many books and articles on food and diet in order to impress other people with my knowledge.

(26) 7. When I tell friends how to prepare food a family member or I have made I mention only ingredients with well known brand names to impress them.

(19) 8. I encourage my family members to prepare better meals than those prepared by our friends.

Social Activity

(48) 1. On holidays, or special days, I like to share favorite foods with my family or friends.

(38) 2. I enjoy going out to eat with friends and family.

(13) 3. I enjoy eating meals in different places such as the kitchen, living room, porch, or fixing a picnic and sharing it with friends.

(20) 4. It makes me happy to be able to share extra nice foods that I have grown, caught, or bought with my friends and family.

(1) 5. I try to take part in group activities often to enjoy old friends and make new ones.

(4) 6. I like to belong to organizations in which we get together to eat and then hold our meeting.

(18) 7. I like to have friends as my guests at a meal followed by playing games and visiting.

(10) 8. I enjoy taking food to people who can't go out, and visiting with them.

Economy

(32) 1. I try to buy foods when they are in season as they cost less and taste better.

(21) 2. I try to buy foods on special sales (lower prices) when I go to the grocery store.

(45) 3. I buy food in as large amounts as I can use because it costs less and saves me trips to the store.

(3) 4. I often plan to cook enough food at one time to use for several meals.

(47) 5. I eat away from home less since the cost of food has gone up in public eating places.

(42) 6. I compare prices between the neighborhood grocery and the supermarket before I buy.

(17) 7. I do not buy "ready to serve" foods when they cost more than those I can make.

(12) 8. My family freezes or cans foods for later use while they are plentiful and reasonable in price.

Security

(2) 1. I like to have enough food in the house that I can manage if the weather is bad and I can't go to the grocery store.

(28) 2. I keep food supplies and cooking equipment down low enough that I can reach them to prevent falls.

(5) 3. It is reassuring to me to have a food freezer in which I can store meats, fresh vegetables and fruits bought during the plentiful seasons.

(9) 4. I am concerned about how I can feed myself if I get sick or fall and am unable to walk.

(43) 5. I sometimes wonder how I will manage to get to the grocery store when I can no longer drive my car.

(41) 6. I worry about getting enough of the right kind of foods to keep my bones from breaking easily.

(35) 7. I dread going to the grocery store since traffic is fast and I am afraid I may get hit by a car.

(31) 8. I am afraid that I will make a mistake in following my special diet as I don't know how to avoid or prepare some of the foods listed in it.

KEY TO FOOD-RELATED VALUE STATEMENTS

Statement No.	Implied Value	Statement No.	Implied Value
1.	Social Activity	25.	Status
2.	Security	26.	Status
3.	Economy	27.	Status
4.	Social Activity	28.	Security
5.	Security	29.	Health
6.	Education	30.	Status
7.	Health	31.	Security
8.	Health	32.	Economy
9.	Security	33.	Health
10.	Social Activity	34.	Security
11.	Health	35.	Security
12.	Economy	36.	Education
13.	Social Activity	37.	Status
14.	Status	38.	Social Activity
15.	Education	39.	Education
16.	Education	40.	Education
17.	Economy	41.	Security
18.	Social Activity	42.	Economy
19.	Status	43.	Security
20.	Social Activity	44.	Health
21.	Economy	45.	Economy
22.	Education	46.	Status
23.	Health	47.	Economy
24.	Health	48.	Social Activity

APPENDIX C

THE FOOD-RELATED VALUES INTERVIEW

THE FOOD-RELATED VALUES INTERVIEW

Directions

In this deck of cards are 48 statements related to foods. Each statement is on a 3 x 5 inch card. You are requested to place each card bearing a statement under one of the three following categories:

1. This is me ALL of the time.
2. This is me SOME of the time.
3. This is me NONE of the time.

Place each statement card under the category that best represents the way you feel. If it is not possible for you to immediately carry out the activity, answer the way you would most like to do so.

Food-Related Statements That Were Placed on Cards to be Sorted

1. I try to take part in group activities often to enjoy old friends and make new ones.
2. I like to have enough food in the house that I can manage if the weather is bad and I can't go to the grocery store.
3. I often plan to cook enough food at one time to use for several days.
4. I like to belong to organizations in which we get together to eat and then hold our meeting.
5. It is reassuring to me to have a food freezer in which I can store meats, fresh vegetables and fruits bought during the plentiful seasons.
6. I go to meetings to hear experts on diet explain what kinds and amounts of food are needed daily to stay well.
7. I try to remember that there is no one food that can prevent or cure many kinds of illnesses.

8. I have a physical examination at least once a year to try to find and treat any condition which may need attention.

9. I am concerned about how I can feed myself if I get sick or fall and am unable to walk.

10. I enjoy taking food to people who can't go out, and visiting with them.

11. I am concerned about the food served to nursing home patients and how I will get along if I have to eat it.

12. My family freezes or cans foods for later use while they are plentiful and reasonable in price.

13. I enjoy eating meals in different places such as the kitchen, living room, porch, or fixing a picnic and sharing it with friends.

14. It makes me feel important to be included in a group of friends who are planning to go out to eat together.

15. I learn more about what foods I should eat by talking with people who are trained to know this.

16. I try to learn the names of the food nutrients I need and how my body uses them.

17. I do not buy "ready to serve" foods when they cost more than those I can make.

18. I like to have friends as my guests at a meal followed by playing games and visiting.

19. I encourage my family members to prepare better meals than those prepared by our friends.

20. It makes me happy to be able to share extra nice foods that I have grown, caught, or bought with my friends and family.

21. I try to buy foods on special sales (lower prices) when I go to the grocery store.

22. I try to keep informed on what food labels tell and how I can use this information when buying food.

23. I see or talk with my doctor soon if I lose my appetite or have trouble digesting the food I eat.

24. I exercise out-of-doors some every day that my strength and the weather permits me to do so.

25. I am proud to serve home grown, frozen or canned foods to my friends and family.

26. When I tell a friend how to prepare a food a family member or I have made I mention only ingredients with well known brand names to impress them.

27. I control my weight by constantly restricting my food intake so that I will have a figure that others will admire.

28. I keep food supplies and cooking equipment down low enough that I can reach them to prevent falls.

29. If my doctor puts me on a special diet I listen carefully and follow the directions the doctor or dietitian gives me.

30. I read many recent books and articles on food and diet in order to impress other people with my knowledge.

31. I am afraid that I will make a mistake in following my special diet as I don't know how to avoid or prepare some of the foods listed in it.

32. I try to buy foods when they are in season as they cost less and taste better.

33. I believe I feel better when I eat food at regular meal times throughout the day.

34. I read all I can find about organic foods and why many people claim they are superior in food value.

35. I dread going to the grocery store since traffic is fast and I am afraid I may get hit by a car.

36. I try to keep from being too fat or too thin by reading what foods to eat to control body weight.

37. I like to be the first person in a group of friends to serve a special new food.

38. I enjoy going out to eat with friends and family.

39. I read bulletins and magazines on how to prevent food poisoning by handling and storing foods wisely.

40. I listen to the radio or watch television to try to learn what kinds of food I should eat.

41. I worry about getting enough of the right kind of foods to keep my bones from breaking easily.

42. I compare prices between the neighborhood grocery and the supermarket before I buy.

43. I sometimes wonder how I will manage to get to the grocery store when I can no longer drive my car.

44. I try to eat a variety of foods every day so that my body will have all the materials it needs to help me stay well.

45. I buy food in as large amounts as I can use because it costs less and saves me trips to the store.

46. I am pleased when guests in my home ask how food served to them was prepared or where it was purchased.

47. I eat away from home less since the cost of food has gone up in public eating places.

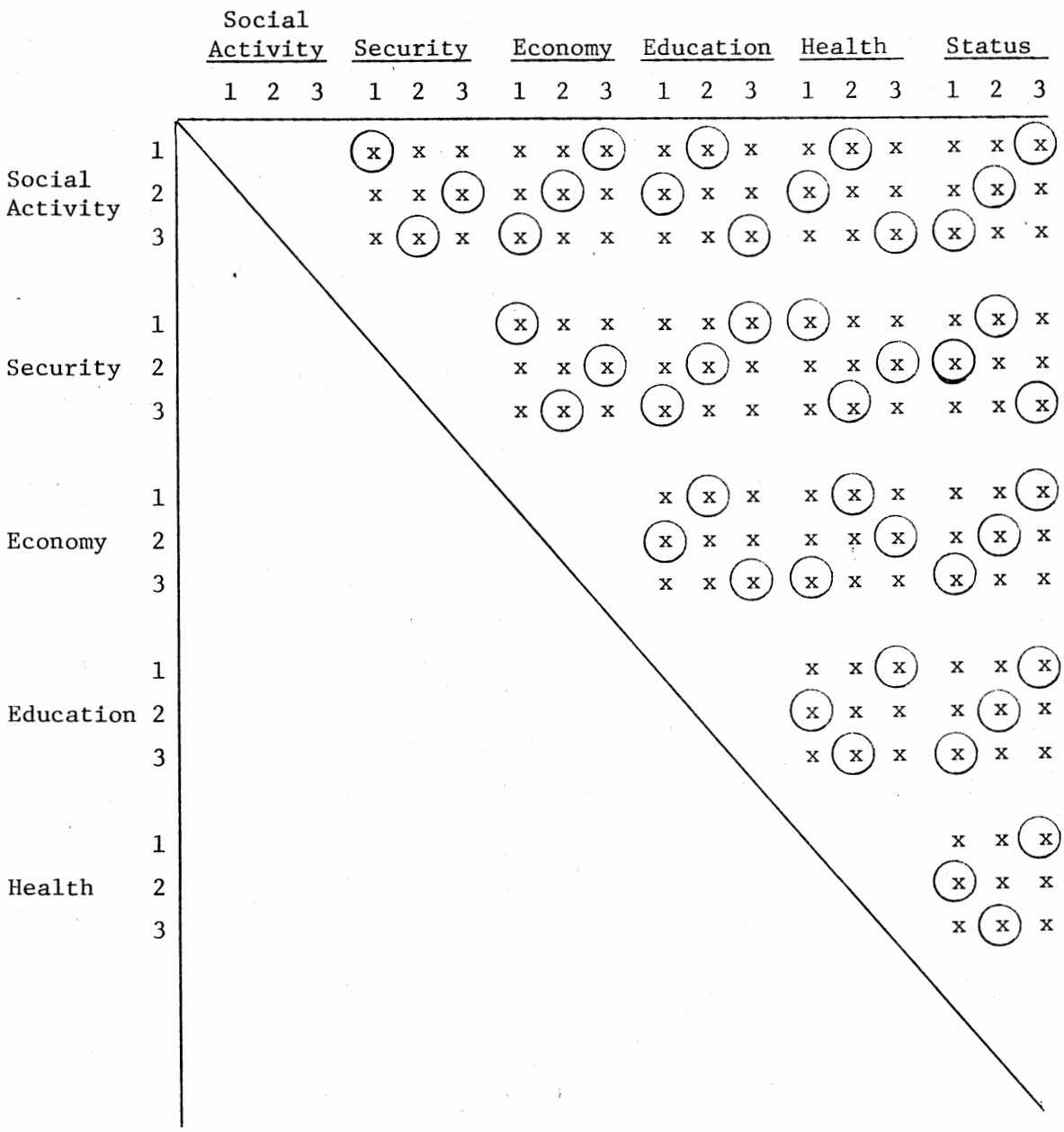
48. On holidays, or special days, I like to share favorite foods with my family or friends.

APPENDIX D

PAIRINGS OF VALUE STATEMENTS AS DETERMINED BY COMPUTER MATRIX

TABLE IX

PAIRINGS OF VALUES STATEMENTS FOR FOOD-RELATED VALUES TEST INSTRUMENT



APPENDIX E

FOOD-RELATED VALUE INSTRUMENT FOR SELECTED ELDERLY

FOOD-RELATED VALUE INSTRUMENT FOR

SELECTED ELDERLY

From a previous interview, the following statements were selected by you to use in making choices between activities that are important. These statements now appear in pairs. Here is an example:

__X__A. I try to remember that there is no one food that can prevent or cure many kinds of illnesses.
____B. I try to learn the names of the food nutrients I need and how my body uses them.

Which of the two paired statements is most important to you or which would you do first? It is very important that you feel free in making choices. There is no right and wrong answer, but the way you feel is important. Sometimes the choice between the pair will be hard to make, but make a choice in every pair. Usually your first impression is your best choice of how you feel. Even though a statement may be repeated several times, it will be paired with a different statement each time. Please make a choice between each pair of statements.

Please put an X in front of either A or B. DO NOT SKIP.

****

1. ____A. I try to keep informed on what food labels tell and how I can use this information when buying food.
   ____B. I am proud to serve home grown, frozen or canned foods to my friends and family.

2. ____A. It is reassuring to me to have a food freezer in which I can store meats, fresh vegetables and fruits bought during the plentiful seasons.
   ____B. I try to keep informed on what food labels tell and how I can use this information when buying food.

3. ____A. I enjoy eating meals in different places such as the kitchen, living room, porch, or fixing a picnic and sharing it with friends.
   ____B. I try to buy foods when they are in season as they cost less and taste better.

4. ____A. I enjoy eating meals in different places such as the kitchen, living room, porch, or fixing a picnic and sharing it with friends.
   ____B. I am pleased when guests in my home ask how food served to them was prepared or where it was purchased.

5. ____A. I enjoy eating meals in different places such as the kitchen, living room, porch, or fixing a picnic and sharing it with friends.
   ____B. I read bulletins and magazines on how to prevent food poisoning by handling and storing foods wisely.

6. ____A. I like to have enough food in the house that I can manage if the weather is bad and I can't go to the grocery store.
   ____B. I believe I feel better when I eat food at regular meal times throughout the day.

7. ____A. I try to buy foods on special sales (lower prices) when I go to the grocery store.
   ____B. I try to keep informed on what food labels tell and how I can use this information when buying food.

8. ____A. I try to keep informed on what food labels tell and how I can use this information when buying food.
   ____B. I try to remember that there is no one food that can prevent or cure many kinds of illnesses.

9. ____A. I try to learn the names of the food nutrients I need and how my body uses them.
   ____B. It makes me feel important to be included in a group of friends who are planning to go out to eat together.

10. ____A. I try to eat a variety of foods every day so that my body will have all the materials it needs to help me stay well.
    ____B. I am pleased when guests in my home ask how food served to them was prepared or where it was purchased.

11. ____A. I try to buy foods on special sales (lower prices) when I go to the grocery store.
    ____B. I try to remember that there is no one food that can prevent of cure many kinds of illnesses.

12. ____A. I buy food in as large amounts as I can use because it costs less and saves me trips to the store.
    ____B. I am pleased when guests in my home ask how food served to them was prepared or where it was purchased.

13. ____A. I try to learn the names of the food nutrients I need and how my body uses them.
    ____B. I believe I feel better when I eat food at regular meal times throughout the day.

14. ____A. I buy food in as large amounts as I can use because it costs less and saves me trips to the store.
____B. I read bulletins and magazines on how to prevent food poisoning by handling and storing foods wisely.

15. ____A. On holidays, or special days, I like to share favorite foods with my family or friends.
____B. I buy food in as large amounts as I can use because it costs less and saves me trips to the store.

16. ____A. I keep food supplies and cooking equipment down low enough that I can reach them to prevent falls.
____B. I buy food in as large amounts as I can use because it costs less and saves me trips to the store.

17. ____A. I believe I feel better when I eat food at regular meal times throughout the day.
____B. I am proud to serve home grown, frozen or canned foods to my friends and family.

18. ____A. I enjoy going out to eat with friends and family.
____B. I try to keep informed on what food labels tell and how I can use this information when buying food.

19. ____A. I read bulletins and magazines on how to prevent food poisoning by handling and storing foods wisely.
____B. I try to eat a variety of foods every day so that my body will have all the materials it needs to help me stay well.

20. ____A. I like to have enough food in the house that I can manage if the weather is bad and I can't go to the grocery store.
____B. I read bulletins and magazines on how to prevent food poisoning by handling and storing foods wisely.

21. ____A. I enjoy going out to eat with friends and family.
____B. It is reassuring to me to have a food freezer in which I can store meats, fresh vegetables and fruits bought during the plentiful seasons.

22. ____A. I try to remember that there is no one food that can prevent or cure many kinds of illnesses.
____B. It makes me feel important to be included in a group of friends who are planning to go out to eat together.

23. ____A. It is reassuring to me to have a food freezer in which I can store meats, fresh vegetables and fruits bought during the plentiful seasons.
____B. I try to eat a variety of foods every day so that my body will have all the materials it needs to help me stay well.

24. ____A. I enjoy going out to eat with friends and family.
____B. I try to buy foods on special sales (lower prices) when I go to the grocery store.

25. ____A. I like to have enough food in the house that I can manage if the weather is bad and I can't go to the grocery store.
____B. It makes me feel important to be included in a group of friends who are planning to go out to eat together.

26. ____A. I try to buy foods on special sales (lower prices) when I go to the grocery store.
____B. It makes me feel important to be included in a group of friends who are planning to go out to eat together.

27. ____A. I keep food supplies and cooking equipment down low enough that I can reach them to prevent falling.
____B. I am pleased when guests in my home ask how food served to them was prepared or where it was purchased.

28. ____A. On holidays, or special days, I like to share favorite foods with my family or friends.
____B. I am proud to serve home grown, frozen or canned foods to my friends and family.

29. ____A. I enjoy going out to eat with friends and family.
____B. It makes me feel important to be included in a group of friends who are planning to go out to eat together.

30. ____A. It is reassuring to me to have a food freezer in which I can store meats, fresh vegetables and fruits bought during the plentiful seasons.
____B. I try to buy foods on special sales (lower prices) when I go to the grocery store.

31. ____A. I enjoy going out to eat with friends and family.
____B. I believe I feel better when I eat food at regular meal times throughout the day.

32. ____A. I read bulletins and magazines on how to prevent food poisoning by handling and storing foods wisely.
____B. I am pleased when guests in my home ask how food served to them was prepared or where it was purchased.

33. ____A. I try to buy foods when they are in season as they cost less and taste better.
____B. I try to eat a variety of foods every day so that my body will have all the materials it needs to help me stay well.

34. ____A. I keep food supplies and cooking equipment down low enough that I can reach them to prevent falls.
____B. I try to learn the names of the food nutrients I need and how my body uses them.

35. ____A. I try to buy foods when they are in season as they cost less and taste better.
____B. I am proud to serve home grown, frozen or canned foods to my friends and family.

36. ____A. On holidays, or special days, I like to share favorite foods with my family or friends.
____B. I try to learn the names of the food nutrients I need and how my body uses them.

37. ____A. I like to have enough food in the house that I can manage if the weather is bad and I can't go to the grocery store.
____B. I try to buy foods when they are in season as they cost less and taste better.

38. ____A. It is reassuring to me to have a food freezer in which I can store meets, fresh vegetables and fruits bought during the plentiful seasons.
____B. I am proud to serve home grown, frozen or canned foods to my friends and family.

39. ____A. I enjoy eating meals in different places such as the kitchen, living room, porch, or fixing a picnic and sharing it with friends.
____B. I try to remember that there is no one food that can prevent or cure many kinds of illnesses.

40. ____A. On holidays, or special days, I like to share favorite foods with my family or friends.
____B. I try to eat a variety of foods every day so that my body will have all the materials it needs to help me stay well.

41. ____A. I try to buy foods when they are in season as they cost less and taste better.
____B. I try to learn the names of the food nutrients I need and how my body uses them.

42. ____A. I enjoy eating meals in different places such as the kitchen, living room, porch, or fixing a picnic and sharing it with friends.
____B. I keep food supplies and cooking equipment down low enough that I can reach them to prevent falls.

43. ____A. On holidays, or special days, I like to share favorite foods with my family or friends.
____B. I like to have enough food in the house that I can manage if the weather is bad and I can't go to the grocery store.

44. ____A. I keep food supplies and cooking equipment down low enough that I can reach them to prevent falls.
____B. I try to remember that there is no one food that can prevent or cure many kinds of illnesses.

45. ____A. I buy food in as large amounts as I can use because it costs less and saves me trips to the store.
____B. I believe I feel better when eat food at regular meal times throughout the day.

The following additional information is needed, but your name will not be used in any of this material.

Occupation now or former if retired _____

Please make an X near all items below that describe you.

1. How far did you go in school?

____completed eighth grade or less

____attended high school

____graduated from high school

____attended college

____graduated from college

2. With which family members are you living?

____husband

____wife

____children and/or grandchildren

____other relatives

____other (list) _____

3. Who is responsible for food preparation in your home?

____self

____spouse

____relatives living in home

____other (list) _____

4. How have you learned new information about foods and nutrition?

____diet books and magazine articles

____dietitians (as in a hospital)

____Extension Home Economics (as in demonstrations and lectures)

____clubs or organizations

____friends and/or family

____newspapers, radio, television, etc.

____other (list)_____

APPENDIX F

HIERARCHAL RANKING OF FOOD RELATED VALUES

AS DETERMINED BY THE 1973 INTERVIEW

TABLE X

HIERARCHAL RANKING OF VALUES OBTAINED FROM THE INTERVIEW BY BARBOUR*

Statement Number	Social Activity	Security	Economy	Education	Health	Status
1	174	265	164	51	262	188
2	131	129	105	165	242	66
3	135	123	136	190	129	146
4	191	254	225	217	121	70
5	150	36	248	63	220	121
6	184	61	114	157	163	50
7	219	72	199	167	277	53
8	258	94	88	129	271	197
TOTALS	1,442	1,034	1,279	1,139	1,685	891
RANK	2	5	3	4	1	6

*Frequency: 150.

TABLE XI

HIERARCHAL RANKING OF VALUES OBTAINED IN THE INTERVIEW--MALE*

Statement Number	Social Activity	Security	Economy	Education	Health	Status
1	31	44	26	9	52	32
2	19	18	22	36	46	8
3	20	18	27	35	23	22
4	30	49	45	34	31	8
5	22	3	44	17	51	31
6	40	13	28	29	33	8
7	36	7	35	27	54	3
8	46	13	17	18	49	21
TOTALS	244	165	244	205	339	133
RANK	2	5	3	4	1	6

*Frequency: 30.

TABLE XII

HIERARCHAL RANKING OF VALUES OBTAINED IN THE INTERVIEW--FEMALE*

Statement Number	Social Activity	Security	Economy	Education	Health	Status
1	143	221	138	42	210	156
2	112	111	83	129	196	58
3	115	105	109	155	106	124
4	161	205	180	183	90	62
5	128	33	204	46	169	90
6	144	48	86	128	130	42
7	183	65	164	140	223	50
8	212	81	71	111	222	176
TOTALS	1,198	869	1,035	934	1,346	758
RANK	2	5	3	4	1	6

*Frequency: 120.

TABLE XIII

HIERARCHAL RANKING OF VALUES STATEMENT NUMBERS

Ranking	Social Activity Statement Number	Security Statement Number	Economy Statement Number	Education Statement Number	Health Statement Number	Status Statement Number
1	8	1	5	4	7	8
2	7	4	5	3	8	1
3	4	2	7	7	1	3

VITA

Sharon Kay Turner

Candidate for the Degree of

Master of Science

Thesis: DETERMINATION OF FOOD-RELATED VALUES OF ELDERLY MEN AND WOMEN IN STILLWATER, OKLAHOMA

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Education: Graduated from Highlands High School, San Antonio, Texas, May, 1967; received the Bachelor of Science degree with a major in Home Economics Education from the University of Houston, Houston, Texas, May, 1972; completed a second degree of Dietetics and Food Service Management, University of Houston, Houston, Texas, May, 1973; completed the Administrative Dietetic Internship, Oklahoma State University, Stillwater, Oklahoma, December, 1974; completed requirements for the Master of Science degree with a major in Food, Nutrition and Institution Administration, Oklahoma State University, Stillwater, Oklahoma, July, 1976.

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Professional Organizations: American Dietetic Association, Texas Dietetic Association, American Home Economics Association, Texas Home Economics Association, Omicron Nu, Phi Upsilon Omicron.